

THE AMINO ACID SEQUENCE OF HPV 11 L2 MINOR CAPSID PROTEIN

MKPRARRRRKRASATQLYQTCKATGTCPPDVIPKVEHTTIADQILKWGSLGVF
FGGLGIGTGAGSGGRAGYIPLGSSPKPAITGGPAARPPVLVEPVAPSDPSIVSLI
EESAIIINAGAPEVVPPTQGGFTTTSSESTTPAILDVSVTNHTTTTSVFQNPLFTEPS
VIQPQPPVEASGHILISAPTITSQHVEDIPLDTFVVSSSDSGPTSSSTPLPRAFP RPR
VGLYSRALQQVQVTDPAFLSTPQRLVTYDNPVYEGEDVSLQFTHESIHNAPD
EAFMDIIRLHRPAITSRRGLVRFSRIGQRGSMYTRSGQHIGARIHYFQDISPVTQ
AAEEIELHPLVAAENDTFDIYAEPFDPIPDVQHSVTQSYLTSTPNTLSQSWGN
TTVPLSIPSDWVQSGPDITFPTASMGTPFSPVTPALPTGPVFITGSDFY LHPTW
YFARRRRKRIPLF FTDVAA (SEQ. ID. No. 1)

FIGURE 1

**THE AMINO ACID SEQUENCE OF HPV 6B L2 MINOR CAPSID
PROTEIN**

MAHSRARRRRKRASATQLYQTCKLTGTCPDVIPKVEHNTIADQILKWGSLGVFFGGL
GIGTGSGTGGRTGYVPLQTS AKPSITSGPMARPPVVVEPVAPSDPSIVSLIEESAIINAG
APEIVPPAHGGFTITSSETTTPAILDVSVTSHTTTTSIFRNPVFTEPSVTQPQPPVEANGHI
LISAPTVTSHPIEEIPLDTFVVSSSDSGPTSSTPVPGTAPRPRVGLYSRALHQVQVTDPA
FLSTPQRLITYDNPVYEGEDVSVQFSHDSIH NAPDEAFMDIIRLHRPAIASRRGLV RYS
RIGQRGSMHTRSGKHIGARIHYFYDISPIAQAAEEIEMHPLVAAQDDTFDIYAESFEPG
INPTQHPVTNISDTYLTSTPNTVTQPWGNTTVPLSLPNDPFLQSGPDITFPTAPMGTPFS
PVTPALPTGPVFITGSGFYLHPAWYFARKRRKRIPLFFSDVAA (SEQ. ID. No. 2)

FIGURE 2

**THE AMINO ACID SEQUENCE OF HPV 16 L2 MINOR CAPSID
PROTEIN**

MRHKRS AKRTKRASATQLYKTCKQAGTCPPDIIPKVEGKTIAEQILQYGSMGVFFGG
LGIGTGSGTGGRTGYIPLGTRPPTATDTLAPVRPPLTVDPVGPSDPSIVSLVEETSFIDA
GAPTSVPSIPPDVSGFSITTSTDTPAILDINNTVTTVTTHNNPTFTDPSVLQPPTPAETG
GHFTLSSSTISTHNYEEIPMDTFIVSTNPNTVTSSTPIPGSRPVARLGLYSRTTQQVKVV
DPAFVTTPTKLITYDNPAAYEGIDVDNTLYFSSNDNSINIAPDPDFLDIVALHRPALTSR
RTGIRYSRIGNKQTLRTRSGK SIGAKVHYYYDLSTIDPAEEIELQTITPSTYTTTSHAAS
PTSINNGLYDIYADDFITDTSTTPVPSVPSTSLSGYIPANTTIPFGGAYNIPLVSGPDIPIN
ITDQAPSLPIVPGSPQYTIADAGDFY LHPSYYMLRKRRKRLPYFFSDVSLAA (SEQ.
ID. No. 3)

FIGURE 3

THE AMINO ACID SEQUENCE OF HPV 33 L2 MINOR CAPSID PROTEIN

MRHKRSTRRKRASATQLYQTCKATGTCPPDVIPKVEGSTIADQILKYGSLGVFFGGL
GIGTGSGSGGRTGYVPIGTDPTAAIPLQPIRPPVTVDTVGPLDSSIVSLIETSFIEAGA
PAPSIPTPSGFDVTTSADTTPAIINVSSVGESSIQTISTHLNPTFTEPSVLHPPAPAEASGH
FIFSSPTVSTQSYENIPMDTFVVSTDSSNVTSSSTPIPGSRPVARLGLYSRNTQQVKVVD
PAFLTSPHKLITYDNPAFESFDPEDTLQFQHSDISPAPDPDFLDIALHRPAITSRRHTVR
FSRVGQKATLKTRSGKQIGARIHYYQDLSPIVPLDHTVPNEQYELQPLHDTSTSSYSIN
DGLYDVYADDVDNVHTPMQHSYSTFATTRTSNVSIPLNTGFDTPVMSGPDIPSPLFPT
SSPFVPISPFFPFDITIVVDGADFVLHPSYFILRRRRKRFPYFFTDVRVAA (SEQ. ID. No.
4)

FIGURE 4

44 Residue L2 domain Required for L1 Binding

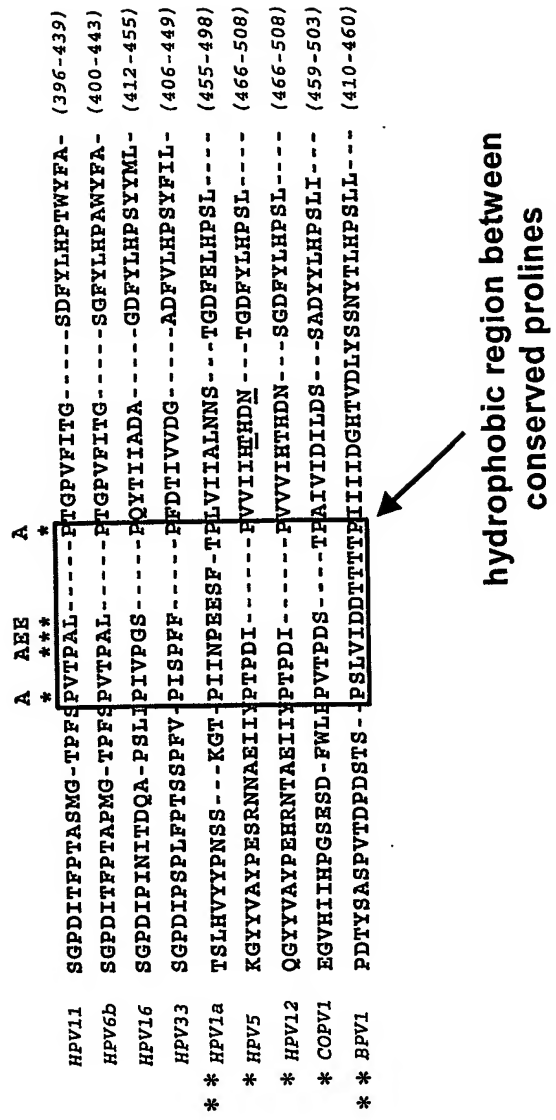


FIGURE 5

Immunization with HPV 16 L1/E7 capsomeres

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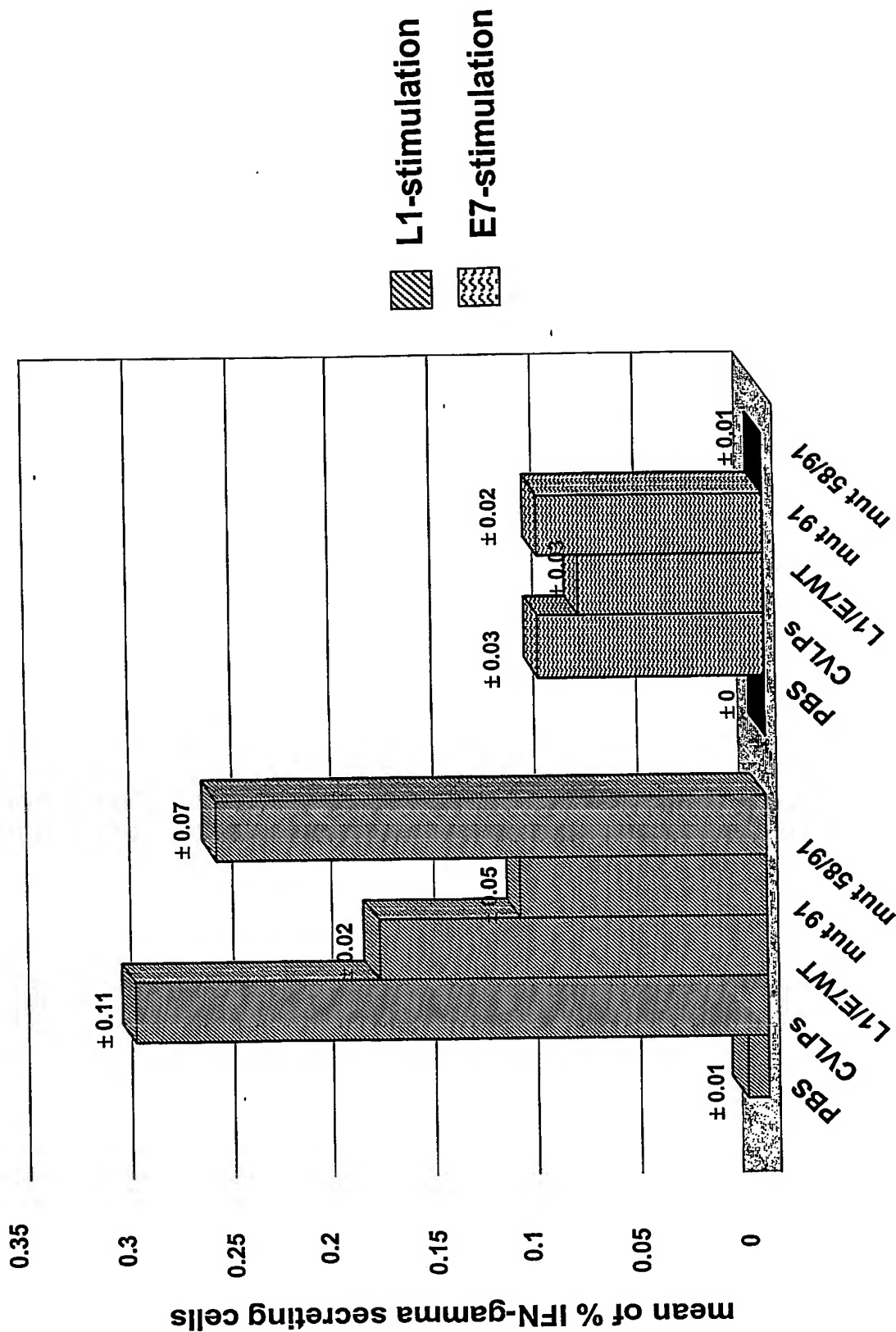


Figure 6

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Regression of HPV 16 positive tumors

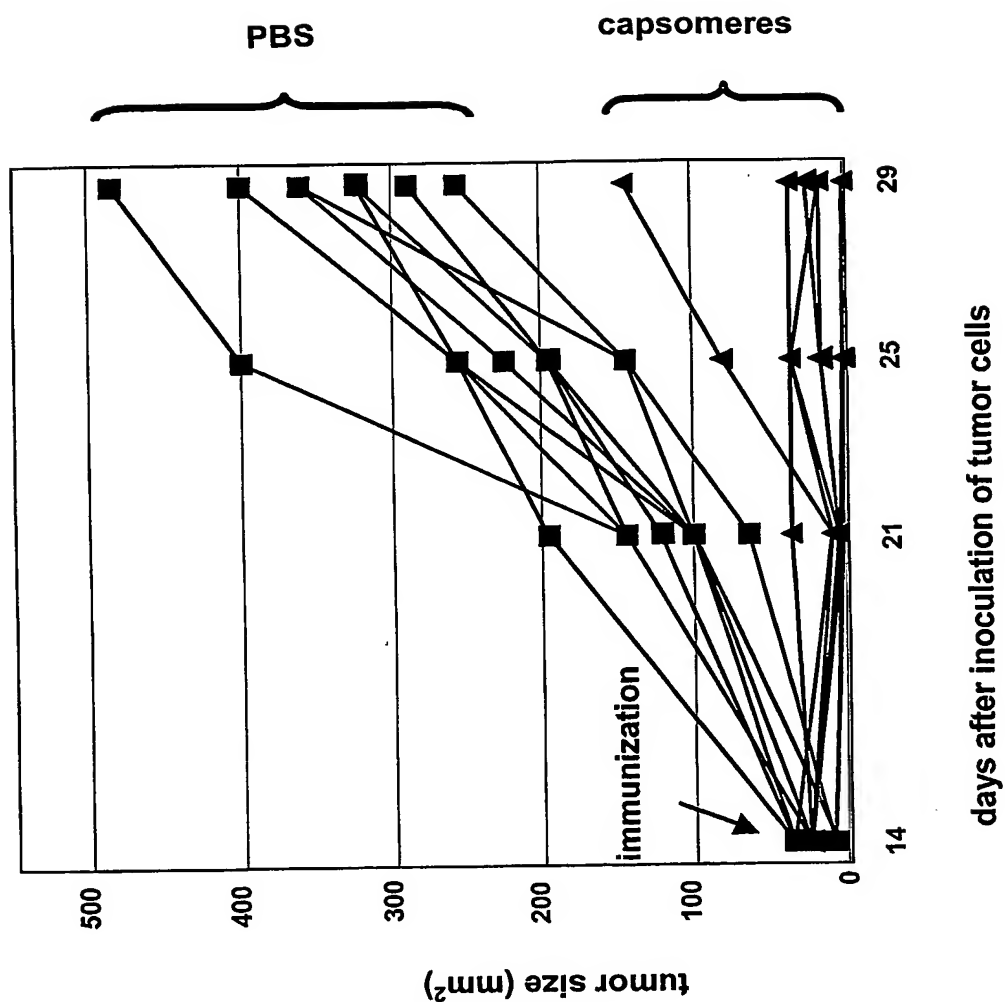


Figure 7